



SECTOR 13

WHITING NESS TO FIFE NESS

Plan.—The E coast of Scotland from Whiting Ness to Fife Ness is described in this sector. The descriptive sequence is from N to S.

General Remarks

13.1 The approach to the River Tay lies between Whiting Ness and Fife Ness, 17 miles S. Dundee, the principal port in this area, lies 7 miles above the river mouth. Bell Rock is the only off-lying danger in the approaches to the river.

Tides—Currents.—At a position off the entrance to the River Tay and about 6 miles W of Bell Rock, the current is more or less rotary clockwise. The SW current, which attains a rate of 1.2 knots at springs, sets in a mean direction of 230° and begins 1 hour 15 minutes before HW at Dover. The NE current, which attains a rate of 1.3 knots at springs, sets in a mean direction of 050° and begins 4 hours 45 minutes after HW at Dover.

Inside the bar of the River Tay and at a position 1.2 miles ESE of Buddon Ness, the flood tidal current begins 1 hour 30 minutes before HW at Dover and the ebb tidal current begins 3 hours 45 minutes after HW at Dover. The flood current attains a rate of 1 knot at springs. It begins to set in a direction of about 290° and then gradually changes through W to set in a direction of about 250°. The ebb current attains a rate of 2.8 knots at springs and sets in a continuous direction of about 100°.

In the vicinity of Bell Rock, the N current begins about 6 hours before HW at Dover and the S current begins at HW at Dover. Both these currents attain rates of not more than 1 knot at springs. The current appears to be more or less rotary, counter-clockwise.

Off Fife Ness, the N current, which attains a rate of 1 knot at springs, begins about 5 hours 30 minutes after HW at Dover. The S current, which attains a rate of 1 knot at springs, begins about 45 minutes before HW at Dover.

Caution.—Submarines exercise frequently in areas lying 80 miles ESE of Bell Rock, 130 miles ENE of Bell Rock, and SE of Fife Ness.

Numerous fishing vessels may be encountered in the waters described within this sector.

Off-lying Dangers

13.2 Bell Rock (56°26′N., 2°23′W.), a drying reef, is formed by a mass of red sandstone and fringed by foul ground. It lies 12 miles E of Buddon Ness, the N entrance point of the River Tay. A main light is shown from a conspicuous tower, 36m high, standing on the NE end of the reef. A racon is situated at the light.

Detached rocky shoals, with depths of 4.4 and 2.5m, lie about 0.2 mile N and 0.3 mile S, respectively, of the light.

Caution.—It is reported that sewage sludge is dumped in an area lying 7 miles E of Bell Rock from 15 May to 15 October, annually.

A lighted buoy, used for radar training, is occasionally moored 46 miles E of Bell Rock.

Whiting Ness to River Tay

13.3 Whiting Ness (56°34'N., 2°33'W.) is the N entrance point of the approaches to the River Tay. The coast in the vicinity of this point consists of red sandstone cliffs. Dickmontlaw, a small hill, rises 1.5 miles NNW of the point and is surmounted by a clump of prominent tall trees.

Arbroath (56°33'N., 2°35'W.), a fishing center, lies 0.8 mile WSW of Whiting Ness. The coast between is low and is fronted by rocky drying ledges which extend up to about 0.2 mile seaward. The harbor, which consists of a tidal basin and a wet dock, is protected by breakwaters and fronted by rocks and reefs.

Tides—Currents.—Tides rise about 5m at springs and 4.1m at neaps.



BELL ROCK LIGHT FROM NW

Depths—Limitations.—The harbor, which has an entrance 33m wide, is approached from the SE by a dredged channel leading thorough a gap in the reefs. This channel is dredged to 2.0m (1999), to the harbor entrance, then 1.5m to the tidal basin. The entrance to the tidal basin is 15m wide and the entrance to the wet dock is 12.2m wide. Both the basin and the wet dock dry as the gates of the latter are not operational and vessels take the bottom at LW. The harbor provides 845m of total quayage and has a depth of 4.3m at springs.. Vessels of up to 70m in length, 10.9m beam, and 4.4m draft have been accommodated at HWS. The harbor is mostly used by fishing vessels and pleasure craft.

Aspect.—A lighted range indicates the entrance fairway. A disused signal tower, surmounted by a flagstaff, stands close WNW of the harbor entrance. Two churches, with prominent spires, stand in the N part of the town. A conspicuous ruined abbey is situated in the NW part of the town.

Caution.—During strong onshore winds with a heavy ground swell, a strong SW set, with a rate of as much as 1.5 knots, is often experienced across the entrance. Vessels should use extreme care when approaching the harbor under these circumstances.

An outfall pipeline extends 0.5 mile S from the root of the W breakwater and is marked by a lighted buoy.

13.4 Elliot Water (56°33'N., 2°37'W.) enters the sea 1.3 miles SW of Arbroath. Elliot Horses, consisting of several shallow rocks, extends up to about 0.4 mile seaward of the mouth of this river. A prominent chimney stands near the mouth of the river and a chemical plant, with three prominent chimneys, is situated 0.8 mile SSW of it.

Carnoustie (56°30'N., 2°43'W.), a small town, stands 5.5 miles SW of Arbroath and two conspicuous chimneys, 49m high, are situated in its W part. West Haven, an opening in the foreshore rocks, fronts the NE end of the town and provides shelter to local fishing boats.

Between Carnoustie and Buddon Ness, 2.3 miles SW, the coast consists mainly of grass-covered sand dunes, 15 to 18m high.

Buddon Ness (56°28'N., 2°44'W.), the NE entrance point of the River Tay, has grass-covered dunes, 6 to 9m high, rising on its E side and similar dunes, 9 to 12m high, rising on its S side. Old Buddon High Lighthouse, a conspicuous disused light tower, is 32m high and stands 0.6 mile NW of the point. Another disused light tower stands 0.4 mile NW of the point.

Caution.—A military firing range lies close offshore between Carnoustie and Buddon Ness. Red flags are displayed from several flagstaffs standing along the coast when the range is operational. At night, a red light is shown from the conspicuous disused light tower situated near Buddon Ness.

A spoil ground area, which may best be seen on the chart, lies 1.5 miles ESE of Carnoustie.

Entrance to River Tay

13.5 The River Tay is entered between Buddon Ness and Tentsmuir Point, 3.2 miles WSW. Dundee, a major port, and Perth, a small port, lie 7 miles and 28 miles, respectively, above the river mouth.

The river entrance is encumbered with extensive sands which are liable to change, especially during E gales.

Gaa Sands, which dries, and Gaa Spit front the E side of Buddon Ness. They extend up to about 2 miles seaward and may best be seen on the chart.

Abertay Sands, which dries, extends up to about 3 miles E from Tentsmuir Point. Elbow, an extensive shoal, has shallow depths and extends about 2.5 miles E and NE from the E end of Abertay Sands. Abertay Spit lies on the S side of Elbow. The Bar lies close N of the N end of Elbow. All these obstructions, which may best be seen on the chart, have been extending in an E direction for many years. However, as The Bar has also moved NE, the depths in this part of the entrance have remained fairly constant.

The main navigable channel, which is marked by lighted buoys, leads across The Bar and between Gaa Sands, on the N side, and Abertay Sands, on the S side. This channel is narrow and has a least depth of 6m on the centerline, but a depth of 5.4m lies on its SW side.

An outer approach lighted buoy is moored about 4 miles ENE of Buddon Ness and marks the seaward side of the bar. Abertay lighted buoy, equipped with a racon, is moored on the N side of the channel, 2.5 miles ESE of Buddon Ness.

Tides—Currents.—Tides at The Bar rise about 5.2m at springs and 4.2 m at neaps.

Caution.—Crossing The Bar is dangerous during heavy weather.

Passage across Abertay Sands and Gaa Sands is highly dangerous.

Depths in the vicinity of The Bar are liable to change and the authorities should be contacted for the latest information.

The outer lighted buoys marking the entrance channel are liable to break adrift or be off station during heavy E gales.

A spoil ground area, which may best be seen on the chart, lies 4 miles SE of Buddon Ness.

River Tay

13.6 Between Buddon Ness and Broughty Castle, 4.2 miles W, the N bank of the river forms a bay which is encumbered by Barry Sands, Lady Bank, and Montiefieth Sands. Broughty Castle, a square building, is 24m high and very conspicuous from seaward. Lady Bank extends up to 1.5 miles from the shore and is marked by a lighted buoy.

Lady Shoal, lying about 1.5 miles SW of Buddon Ness, consists of several shoal patches with depths of less than 5.4m. These patches almost form an inner bar across the entrance channel and have a least depth of 3.5m.

Horse Shoe, a shallow ridge of foul ground with large stones, lies close W of Lady Bank. It is located on the N side of the entrance channel, which narrows in this vicinity, and is marked by a lighted buoy. Above this ridge, the channel widens to almost the full width of the river.

A prominent monument, 198m high, stands on a hill which rises 4.2 miles NW of Buddon Ness, but is reported to be obscured by trees.

Tayport, on the S side of the river, lies 0.8 mile SSW of Broughty Castle. This small harbor consists of a drying tidal basin which is formed by piers and has an entrance 25m wide. It has 480m of quayage, with depths of up to 2.4m alongside at HW, and can be entered by small vessels. A main sector light, which indicates the channel, is shown from a tower, 23m high,



TAY ROAD BRIDGE

standing 0.5 mile W of the entrance to the harbor. The tower is reported to be difficult to distinguish except in good light.

Between Tayport and Tentsmuir Point, 2 miles E, the S bank of the river forms a bay which is encumbered by Larick Scalp, Lucky Scalp, and Green Scalp. These drying banks of sand and gravel extend up to 0.7 mile offshore in places and are marked by beacons and lighted buoys. Newcome Shoal fronts the S shore of the river to the W of Tayport and is marked by lighted buoys.

The Tay Road Bridge spans the river 2 miles W of Tayport. The channel leads through two lighted navigational spans which are 76m wide and have minimum vertical clearances of 22.8m at the center. Vessels proceeding W must use the N span and vessels proceeding E must use the S span. Vessels are prohibited from passing through the two spans which are situated on each side of the navigation spans.

The Tay Railway Bridge is situated 1.5 miles W of the Tay Road Bridge and has a total of 83 spans. The navigational channel leads between piers 30 and 35 and under the 7th and 8th larger spans counting from the N. The vertical clearance of this bridge, above the channel, is greater than that of the road bridge. An obstruction, the remains of an old bridge, lies between the 4th and 5th spans from the N and this part of the channel is closed to navigation.

A prominent monument stands close SE of the S end of the Tay Road Bridge and a conspicuous television mast stands 0.3 mile ESE of it.

Pilotage.—Pilotage is compulsory in the river. Vessels should send an ETA at least 6 hours in advance to Dundee Port Control and send any amendments up to 2 hours prior to arrival. Vessels should then contact the port control office when within VHF range. Pilots can be contacted by VHF and usually board vessels in the vicinity of the outer approach lighted buoy. During heavy weather, pilots will board vessels about 0.8 mile SW of Buddon Ness.

Deep-draft vessels are advised to arrive off the outer approach lighted buoy at least 2 hours before HW in order to berth at Dundee on the same tide.

Anchorage.—Anchorage is available in a depth of 6m about 0.6 mile WSW of Buddon Ness. Anchorage can also be taken in a depth of 6m about 0.7 mile NE of the S end of the Tay Road Bridge.

Caution.—Several outfall pipelines extend from the shores of the river and may be best seen on the chart.

A submarine gas pipeline lies across the channel, about 2 miles E of Broughty Castle, and may best be seen on the chart.

Several submarine cable areas lie within the river and may be best seen on the chart.

Several spoil ground areas, which may best be seen on the chart, lie within the river.

Dundee (56°28'N., 2°57'W.)

World Port Index No. 32170

13.7 Dundee is one of the most important ports on the E coast of Scotland. The town, which backs the port, extends for 3 miles along the N side of the river.

Tides—Currents.—Tides at Dundee rise about 5.4m at springs and 4.3m at neaps.

Depths—Limitations.—The main riverside facilities are described from E to W.

Prince Charles Wharf is 115m long and has a dredged depth of 9.5m alongside.

Caledon East Wharf is 150m long and has a dredged depth of 5.8m alongside.

Eastern Wharf is 213m long and has a dredged depth of 8m alongside.

Princess Alexander Wharf is 256m long and has a dredged depth of 9.5m alongside.



REGULUS TOWER (LOCATED IN SAINT ANDREWS)

Caledon West Wharf is 76m long and has a dredged depth of 9.5m alongside.

King George V Wharf is 445m long and has a dredged depth of 8.5m alongside.

Queen Elizabeth Wharf is 194m long and has a dredged depth of 7m alongside.

Camperdown Dock is entered E of Queen Elizabeth Wharf through an entrance 16.5m wide. It has 739m of quayage and a dredged depth of 5.5m. Victoria Dock is entered from Camperdown Dock via an entrance 16.5m wide. It has 1,176m of quayage and a dredged depth of 4.9m.

There are facilities for general cargo, ro-ro, tanker, bulk, oil supply, and cruise vessels. In addition, heavy shore moorings allow for the handling of semi-submersible oil rigs. Vessels up to 240m in length, 40m beam, and 8.9m draft can be accommodated in the port.

Aspect.—A conspicuous memorial stands on a hill, 184m high, which rises 1 mile NW of the N end of the Tay Road Bridge. A conspicuous television mast stands close N of this memorial. A church, with a conspicuous spire, stands close NW of the N end of the Tay Road Bridge and a prominent building is situated close S of it. Two other prominent buildings are situated 0.4 mile WSW of the church.

Caution.—Beacon Rock, which dries and is marked by a beacon, is the outermost of several rocks which lie close off the W end of Queen Elizabeth Wharf.

A prohibited anchorage area, the limits of which are shown on chart, fronts the harbor and extends up to about 0.4 mile offshore.

13.8 Perth (56°24'N., 3°27'W.) (World Port Index No. 32180), a small port and yachting center, lies on the W side of

the river 19.5 miles above the Tay Railroad Bridge and 0.5 mile below the city of the same name. Tides rise about 3.4m at springs and 2m at neaps. The harbor has 640m of quayage with alongside depths of up to 4.5m at HWS. Vessels lie aground on a mud bottom at LW, but the harbor does not completely dry. Vessels of up to 2,800 dwt, 87.6m in length, 12.8m beam, and 4.2m draft have been accommodated.

The channel above Dundee leads through the drying banks in the river and is marked by buoys, beacons, and cairns. Pilotage is not compulsory above Dundee, but is available and recommended for vessels without local knowledge. The river channel is spanned by a bridge, with a vertical clearance of 25m, and by power cables with a minimum vertical clearance of 26m.

Caution.—High barometric pressure can considerably reduce the predicted rise of tide at the port.

Tay River to Fife Ness

13.9 Saint Andrews Bay (56°23'N., 2°41'W.) lies between Tentsmuir Point, the S entrance point of the River Tay, and Fife Ness, 13 miles SE. The River Eden flows into the head of the bay, 4 miles S of Tentsmuir Point. The coast between is low and backed by sandhills. The shore is fronted by Tentsmuir Sands which extend up to about 0.5 mile seaward in places.

Caution.—Targets and target buoys may be occasionally moored off the coast between the mouth of the River Eden and Tentsmuir Point.

River Eden (56°22'N., 2°49'W.) flows into the bay 4 miles S of Tentsmuir Point. Its narrow entrance is bordered by wide sandy flats and fronted by a bar which is constantly changing.

A small quay is situated 3 miles above the entrance at a place where a railway bridge spans the river. A prominent chimney stands close N of the quay. Generally, there are depths of 5.1m on the bar, 2.7m within the bar, and 2.1m alongside the quay at HWS. The river is only suitable for small craft with local knowledge.

Saint Andrews (56°20'N., 2°48'W.), a small town, stands on an area of flat land, 18m high, located 6 miles S of Tentsmuir Point. It is fronted by a small drying harbor which lies at the mouth of Kinnes Burn. The harbor consists of inner and outer basins and is protected by a pier which stands on The Skellies, a rocky ledge. It has an entrance only 8m wide, which is spanned by a moveable pedestrian bridge, and is used by small local fishing boats and pleasure craft.

Regulus Tower, with the ruins of a cathedral close N, stands at the E side of the town and is conspicuous. The university, with a prominent spire, is situated in the NW part of the town. Drumcarrow Craig, a rugged-topped hill, rises 3 miles SW of the town and is prominent. It is 215m high and surmounted by a mast.

Anchorage is available within the bay in depths of 11 to 13m, sand and clay, about 1.5 miles ENE of Regulus Tower.

The coast forming the S part of Saint Andrews Bay is rocky and mostly consists of cliffs up to 30m high.

13.10 Babbet Ness (56°18'N., 2°35'W.) is located 4.5 miles ESE of Saint Andrews and the village of Kingsbarn, with a

prominent church, stands 1 mile S of it. A conspicuous silo and a windpump stand 3.2 miles W and 1 mile W, respectively, of this point.

Cambo Ness is located 1.5 miles SSE of Babbet Ness and is fronted by Cambo Ledge, a rocky shoal, which has a least depth of 5.4m and extends up to about 1 mile offshore.

Fife Ness (56°18'N., 2°35'W.) is located 2 miles SE of Cambo Ness and formed by a cliff, 10m high. The coast between is rocky, backed by grassy slopes, and fringed by rocks which extend up to about 0.3 mile offshore. A main light is shown from a building, 5m high, standing on the point.

A prominent radio tower stands at a coast guard station situated close SW of the light and a very conspicuous house, with a square tower and outbuildings, is situated 0.7 mile W of it. East Lomond, 421m high, and West Lomond, 519m high, rise about 22 miles W of Fife Ness. Both of these isolated mountains are prominent from seaward.

North Carr Rock, which dries 1.4m, lies about 1 mile NE of Fife Ness and is marked by a beacon, 5m high, which resembles, at a distance, a small vessel under sail. The rock lies at the NE extremity of the shoals and foul ground which extend seaward from Fife Ness and a lighted buoy is moored about 0.8 mile NE of it.

The coast extending S from Fife Ness is described in Pub. 192, Sailing Directions (Enroute) North Sea.